



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,020	01/12/2005	Kazuhide Mizutani	DK-US030061	9469
22919 7590 01/21/2010 GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680				
EXAMINER				
ALL MOHAMMAD M				
ART UNIT		PAPER NUMBER		
3744				
MAIL DATE		DELIVERY MODE		
01/21/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,020

Applicant(s)

MIZUTANI ET AL.

Examiner

MOHAMMAD M. ALI

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 5-7 and 11-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Unezake et al (JP 2002-357377 A). Unezake et al disclose an air conditioner comprising existing refrigerant piping (4, 6) that was an existing air conditioner (See Fig 12) and contains residue of an existing of an refrigerant oil, a heat source unit (11, 28) and an user unit (23 evaporator/interior unit Fig. 12) that are connected together by the existing refrigerant piping (4, 6) with a replace working refrigerant disposed therein; and an oil collecting device 9 that is configured such that after the existing refrigerant oil has been changed and before the refurbished air conditioner is run in a normal operating mode, the oil is collecting device 9 can draw in the replaced working refrigerant that is being circulated through the air conditioner and separate the existing refrigerant oil that is carried with the replaced working refrigerant, the replaced working refrigerant being an HFC refrigerant at least wt% of 32 See Figs. 12, 13, 22-23, 25 and 27 and the translation. See also Para [0027] of machine translation. Regarding containing HFC refrigerant containing at least 40 wt% of R32 that serves as a cleaning agent but containing no R134a refrigerant is a cleaning agent which being intended use as a cleaning agent by the Applicants. However, the refrigerant/cleaning agent R32 with at least 40 % without R134a is a well known refrigerant in the market and therefore bears

Art Unit: 3744

no patentable weight on it. For evidentiary reference see column 1, lines 41-42 of US Patent 5,495,057 to Nam et al. It clearly indicates that Unezake et al is capable to use R32 with at least 40 wt% without R134a as a cleaning agent having no obligation to invent the cleaning agent.

Regarding claims 7 and 11, the above disclosure of Unezake et al disclose the limitations of claim 7 and 11.

Regarding claim 5, Unezake et al disclose a step equivalent to step fifth step of changing over a refrigerant circuit with a new heat source (compressor 1, condenser 3) unit and the new user unit (8/evaporator) to normal operation state which the oil collecting device (2) attached thereto; the fifth step being executed after fourth step (being chronological step).

Regarding claim 12, Unezake et al disclose that during the washing of the existing refrigerant piping, the new working refrigerant, an separating the existing refrigerant oil from the existing refrigerant piping being executed after a step equivalent to third step. See Para [0048] to Para [0053] of the enclosed translation.

Regarding claim 6, Unezake et al disclose a step of changing over a refrigerant circuit being composed of existing refrigerant piping with new heat source unit and the new user unit to normal operation state which has the oil collection device attached thereto. See Para [0051]. This step is equivalent to fifth step.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5-7 and 11-12 are rejected under 35 U.S.C. 102 (b) as being anticipated by Taira ET al (US 5,806,329). Taira et al disclose an air conditioner comprising existing refrigerant piping (16, 17) that was an existing air conditioner and contains residue of an existing of an refrigerant oil, a heat source unit (A) and an user unit (18/50 indoor heat exchanger/control unit) that are connected together by the existing refrigerant piping (16, 17) with a replace working refrigerant disposed therein; and an oil collecting device 12 that is configured such that after the existing refrigerant oil has been changed and before the refurbished air conditioner is run in a normal operating mode, the oil is collecting device 12 can draw in the replaced working refrigerant that is being circulated through the air conditioner and separate the existing refrigerant oil that is carried with the replaced working refrigerant, the replaced working refrigerant being an HFC refrigerant at least wt% of R32 See Fig.s1, column 5, line 1 to column 6, line 20. Regarding use of R32 refrigerant containing at least 40 wt% of R32 but containing no R134a. Taira et al's refrigerant system is using a washing agent to conduct washing operation. R32 refrigerant containing at least 40 wt% having no R134a refrigerant is well known and available in the market as disclosed by Name et al in US Patent 5,495,057, column 1, lines 41-42 as discussed above Taira et al is capable of using the R32 with at least 40 wt% without having R134a as a washing agent to wash the existing refrigerant circuit..

Regarding claims and 6, and 12, during washing of existing refrigerant piping, the new working refrigerant or replaced refrigerant as discussed inherently circulates in a wet state through the existing refrigerant line.

Response to Arguments

Applicant's arguments filed 10/16/09 have been fully considered but they are not persuasive. The Applicants argue that the Unezake et al publication makes no mention of HFC refrigerant containing at least 40 wt% of R 32 but containing no R 134a as well as the other features of the independent claims 11 and 7. The Examiner disagrees. Unezaki et al disclose the claimed invention substantially as explained above including using R32 refrigerant as the washing agent (see Para 0044) and therefore Unezake et al capable to use R32 with at least 40 wt% having no R134a refrigerant being a known refrigerant or washing agent and Unezake et al also disclose final fifth step which is simply equivalent the refrigerant circuit after recovery of Unezake et al. The Unezake circuit is being reused as a new heat source with new refrigerant. The using of washing agent of Unezaki et al one of a washing agents known in the market. Unezaki et al is invariably capable of using all possible washing agents including the washing agent used by the Applicants. Applicants do not show any valid reason why Unezaki et al is not capable of using the washing agent used by the Applicants. The same is the equally applicable with Taira et al recovery device. Therefore, the above argument of the Applicants is not correct and thus the rejections are ok.

However, the Examiner mistakenly not typing claim 12 in the previous rejections, therefore another non final is given so that the Applicants avail the opportunity to amend the claims in an allowable form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/
Primary Examiner, Art Unit 3744